



**Department of Energy**

Nevada Operations Office  
P. O. Box 98518  
Las Vegas, NV 89193-8518

WBS #1.2.9.3  
"QA"

**AUG 16 1989**

Larry R. Hayes  
Technical Project Officer for Yucca Mountain Project  
U.S. Geological Survey  
101 Convention Center Drive  
Suite 860  
Las Vegas, NV 89109

**CLOSURE OF STANDARD DEFICIENCY REPORTS (SDRs) 132 AND 133, REVISION 0,  
RESULTING FROM YUCCA MOUNTAIN PROJECT OFFICE QUALITY ASSURANCE AUDIT 88-3 OF  
U.S. GEOLOGICAL SURVEY**

SDRs 132 and 133 have been closed based on satisfactory verification of completed corrective actions. Copies of the SDRs are enclosed for your files.

If you have any questions, please contact James Blaylock of my staff at 794-7913 or Catherine M. Thompson of Science Applications International Corporation at 794-7738.

Edwin L. Wilmot, Acting Director  
Quality Assurance Division  
Yucca Mountain Project Office

YMP:JB-5403

Enclosure:  
SDR 132, Revision 0

cc w/encl:  
Ralph Stein, HQ (RW-30) FORS  
Dwight Shelor, HQ (RW-3) FORS  
J. R. Willmon, USGS, Denver, CO  
J. J. Brogan, SAIC, Las Vegas, NV, 517/T-12  
L. G. Scherr, SAIC, Las Vegas, NV, 517/T-06  
C. M. Thompson, SAIC, Las Vegas, NV 517/T-12  
S. W. Zimmerman, NWPO, Carson City, NV  
J. E. Kennedy, NRC, Washington, DC

cc w/o encl:  
K. G. Sommer, HQ (RW-3) FORS  
Alan Flint, USGS, NTS  
G. P. Fehr, SAIC, Las Vegas, NV, 517/T-12  
V. D. Hedges, SAIC, Las Vegas, NV, 517/T-06  
R. J. Bahorich, SAIC, W, Las Vegas, NV, 517/T-37  
D. O. Porter, SAIC, Golden, CO  
J. W. Gilray, NRC, Las Vegas, NV

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PDR WASTE  
WM-11 PDC

FULL TEXT ASCII SCAN

102.4  
WM-11  
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WMPO STANDARD DEFICIENCY REPORT

N-QA-038  
3/87

Completed by Originating QA Organization

Completed by Organization in Block 5

Completed by Orig. QA Org.

1 Date 4/28/88		2 Severity Level <input type="checkbox"/> 1 <input checked="" type="checkbox"/> 2 <input type="checkbox"/> 3		Page 1 of 2
3 Discovered During Audit No. 88-3	3a Identified By Schwartztrauber/Thompson	3b Branch Chief Concurrence Date N/A	4 SDR No. 132 Rev. 0	
5 Organization USGS-Menlo Park	6 Person(s) Contacted John Evans/Tom Chaney		7 Response Due Date is 20 Working Days from Date of Transmittal	
8 Requirement (Audit Checklist Reference, if Applicable) (Refer to Audit Checklist No. 3.5) NNWSI QA Plan, NVO-196-17, Rev. 5, dated 3/19/87, Section III, Para. 3.3, identifies 3 minimum requirements for a software configuration management program. One of these requirements is a				
9 Deficiency NNWSI-USGS-QMP-3.03, Rev. 0, approved in October 1986, does not include a requirement for the listing of the software nor have listings been provided.				
10 Recommended Action(s): <input checked="" type="checkbox"/> Remedial <input checked="" type="checkbox"/> Investigative <input checked="" type="checkbox"/> Corrective 1. Revise NNWSI-USGS-QMP-3.03, Rev. 0 to comply with NVO-196-17, Rev. 5. 2. Provide listings with the Software Summary Forms.				

11 QAE/Lead Auditor Date <i>[Signature]</i> 5/11/88	12 Branch Manager Date <i>[Signature]</i> 5/10/88	13 Project Quality Mgr. Date <i>[Signature]</i> 5/21/88
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14 Remedial/Investigative Action(s)  
Upon investigation it was determined that NNWSI-USGS-QMP-3.03, R0 does indeed require that computer listings be provided. However, the listing is not required to be provided until the SCIF is submitted. This requirement is satisfied by completion of QMP-3.03 Attachment 2, sections 9.4, 10.1, 11.1, 21, 21.1, 29.1, 29.2 and 31.1. A review of NVO-196-17, Rev. 5 and NNWSI-USGS-QAPP-01, R4 reveals (continued on page 2)

15 Effective Date N/A

16 Cause of the Condition & Corrective Action to Prevent Recurrence  
N/A

17 Effective Date \_\_\_\_\_

18 Signature/Date  
*[Signature]* 7/1/88

19 Response	<input type="checkbox"/> Accept <input type="checkbox"/> Reject	<input checked="" type="checkbox"/> Amended Response	QAE/Lead Auditor/Date <i>[Signature]</i> 10/10/88	Branch Manager/Date <i>[Signature]</i> 13 Oct 88
20 Amended Response	<input checked="" type="checkbox"/> Accept <input type="checkbox"/> Reject		QAE/Lead Auditor/Date <i>[Signature]</i> 4/17/89	Branch Manager/Date <i>[Signature]</i> 17 Oct 89
21 Verification	<input checked="" type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory		QAE/Lead Auditor/Date <i>[Signature]</i> 8/3/89	Branch Manager/Date J.W. Estelle 8/8/89
22 Remarks Unrequested amended response dated 7/18/88 - Acceptable - <i>[Signature]</i> 7/28/89 - QAE/LEAD AUDITOR See attached sheet for verification information. <i>[Signature]</i> 8-2-89 - Manager/Date				
23 QA CLOSURE	QAE/Lead Auditor/Date <i>[Signature]</i> 8/14/89	Branch Manager/Date J.W. Estelle 8/8/89	PCM/Date James Blaylock 8/8/89	

ENCLOSURE



WMPO STANDARD DEFICIENCY REPORT  
CONTINUATION SHEET

N-QA-038  
10/86

SDR No. 132

Rev. 0

Page 2 of 2

8 Requirement ( continued )

listing of the software.

10 Recommended Actions ( continued )

3. Investigate to determine if other NVO-196-17, Rev. 5 requirements have been omitted from NNWSI-USGS-QMP-3.03, Rev. 0.
4. Identify how to prevent recurrence in the future.
5. Determine impact of this deficiency on the quality of any work product.

14. Remedial/Investigative Action(s) (continued)

that there is no requirement that the computer listing be submitted with the SSF, only that a listing is required some time prior to publication of any results from a specific piece of Scientific and Engineering Software (SES). Therefore, no further action is required to resolve this SDR.

**SDR 132 - Verification Information**

USGS has issued QMP 3.03, Rev. 1, which includes a requirement that source code listings for developed and acquired software be in the User's Manual if available.

In addition, QMP 3.14, Rev. 0, has been issued adding a requirement for the assignment of unique configuration identifier by the SCM Librarian in conjunction with the responsible TC.

SDR 132 - Amended response:

The USGS quality assurance software requirements will be substantively revised as a result of the implementation of new requirements in YMP/88-9, R2. All USGS software will be brought into compliance with those requirements.



United States Department of the Interior



GEOLOGICAL SURVEY  
BOX 25046 M.S. 425  
DENVER FEDERAL CENTER  
DENVER, COLORADO 80225

WBS #: 1.2.973  
QA: "QA"

IN REPLY REFER TO:

July 18, 1989

Carl P. Gertz, Project Manager  
Yucca Mountain Project Office  
U.S. Department of Energy  
P.O. Box 98518  
Las Vegas, NV 89193-8518

ATTENTION: E. L. Wilmot, Acting Project Quality Manager

SUBJECT: AMENDED RESPONSE TO STANDARD DEFICIENCY REPORT (SDR) 132

REFERENCE: Larry R. Hayes' January 9, 1989 letter to Jim  
Blaylock; subject: Reference Letter Blaylock to Hayes,  
YMP:JB-948, dated 12/12/88

Dear Carl:

An amended response to SDR-132 was sent to the Project Office on January 9, 1989 as a result of a request by the Project Office (see referenced correspondence). Further scrutiny of the amended response indicates that the wording is very general and difficult to verify. Therefore I would like to further amend the response. Please replace the amended response sent on January 9, 1989 with the following:

QMP-3.03 is being revised and QMP-3.14 developed to include the applicable requirements concerning computer listings and other requirements of the YMP-USGS-QAPP-01, R5, Appendix H. (This revision of the USGS QAPP, including appendices, was approved by the Project Office on April 3, 1989.) Computer source-code listings, if available, will be required to be submitted for each version of a software product with the Software Summary Form appropriate to that version prior to the application of that software for any YMP-USGS QA level I or II activities. Inclusion of the appropriate requirements in these QMPs will prevent recurrence of the cited condition in the future. There is no negative impact on any work product.

Sincerely,

J.R. Willson,  
Quality Assurance Manager

MHM/JRW/aa

Letter to C. P. Gertz, July 18, 1989

Page - 2 -

cc: J.W. Estella, SAIC/T&MSS Project QA Engineering  
R.W. Gray, IMD, NV  
S. Berkel, IMD, NV  
J.J. Brogan  
QA File 3.16.01 SDR-132  
QA logbook

WMPO STANDARD DEFICIENCY REPORT

N-QA-033  
3/87

Completed by Originating QA Organization	1 Date 4/28/88		2 Severity Level <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 3		Page 1 of 1	
	3 Discovered During Audit No. 88-3		3a Identified By Schwartztrauber/Thompson		3b Branch Chief Concurrence Date	
	4 SDR No. 133		Rev. 0			
	5 Organization USGS-Menlo Park		6 Person(s) Contacted John Evans/Tom Chaney		7 Response Due Date is 20 Working Days from Date of Transmittal	
	8 Requirement (Audit Checklist Reference, if Applicable) (Refer to Audit Checklist No. 3.11) NNWSI-USGS-QMP-3.03, Rev. 0, Para. 6.3.2, requires the QA office to assign a unique identification code to each Software Summary Form and Software Checklist and Indexing Form.					
	9 Deficiency This requirement is not being complied with nor has the procedure been changed to reflect the actual practice.					
	10 Recommended Action(s): <input checked="" type="checkbox"/> Remedial <input type="checkbox"/> Investigative <input type="checkbox"/> Corrective Revise the procedure, NNWSI-USGS-QMP-3.03, Rev. 0, or comply with the requirement.					
	Completed by Organization in Block 5	11 QAE/Lead Auditor Date		12 Branch Manager Date		13 Project Quality Mgr. Date
		<i>M. Thompson 5/10/88</i>		<i>A. Alwell 5/10/88</i>		<i>Roger Morko 5/27/88</i>
		14 Remedial/Investigative Action(s) The requirement cited in NNWSI-USGS-QMP-3.03, R0, Para. 6.3.2 has been determined to be redundant in that sufficient identification can be accomplished through the software name and version number. This requirement will be deleted when QMP-3.03 is revised.				
15 Cause of the Condition & Corrective Action to Prevent Recurrence N/A						
16 Effective Date _____						
18 Signature/Date <i>J. Williams 7/1/88</i>						
Comp. by Orig. QA Org.	19 Response <input checked="" type="checkbox"/> Accept <input type="checkbox"/> Amended Response <input type="checkbox"/> Reject		QAE/Lead Auditor/Date		Branch Manager/Date	
			<i>M. Thompson 10/2/88</i>		<i>A. Alwell 13 Oct 88</i>	
	20 Amended Response <input type="checkbox"/> Accept <input type="checkbox"/> Reject		QAE/Lead Auditor/Date		Branch Manager/Date	
21 Verification <input checked="" type="checkbox"/> Satisfactory <input type="checkbox"/> Unsatisfactory		QAE/Lead Auditor/Date		Branch Manager/Date		
		<i>John Thomas 8/4/89</i>		<i>J.W. Estella 8/8/89</i>		
22 Remarks USGS has issued QMP 3.03, Rev. 1, with an effective date of 7/26/89, to delete redundant requirement and has issued QMP 3.14, Rev. 0, to add a requirement for assignment of unique configuration identifier by the SCM Librarian.						
23 QA CLOSURE		QAE/Lead Auditor/Date		Branch Manager/Date	RCM/Date	
		<i>M. Thompson 8/8/89</i>		<i>J.W. Estella 8/8/89</i>	<i>James Blylock 8-8-89</i>	